

# California GIS Council Workgroup Report

## Workgroup: National Hydrography Dataset

Workgroup page\*: <http://cgia.org/cagiscouncil/workgroups/hydrography/>

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September 13, 2018

\*See the workgroup page for workgroup charter, members, contact information, and prior reports.

### Requests for Council Action

None at this time

### Status Update

Members of this workgroup regularly interact as part of the ongoing work of the NHD Stewardship Program. (We have not held a stand-alone CA GIS Council NHD Workgroup meeting.)

Progress on the editing of the California portion of the NHD has been affected by US Geological Survey (USGS) work preparing Hydrologic Region 18 (most of California) for incorporation into the NHDPlus High Resolution dataset. Up until now, NHDPlus has been available for California at the 1:100,000 scale. That is changing, and by next year it will also be available at the 1:24,000 scale. The sub-stewards at CSU Chico and CSU Northridge are editing whatever areas USGS will allow; it has been a challenge to coordinate our comprehensive update work around the USGS work which is focused on network improvement. (This refers to the geometric network in the NHD data model.) Thousands of network connectivity issues have been discovered by USGS in areas that were edited in the past by US Forest Service (USFS), and coordination between USGS, USFS, and the Department of Water Resources (DWR) is underway to train DWR's NHD editors to review and resolve these issues.

A presentation on the California NHD Stewardship Program by Joel Osuna of the Center for Geospatial Science and Technology at CSU Northridge and Jane Schafer-Kramer of DWR happened at the Esri User Conference on July 12 in San Diego. The slide deck is posted on the Esri UC proceedings site:

[http://proceedings.esri.com/library/userconf/proc18/papers/287\\_65.pdf](http://proceedings.esri.com/library/userconf/proc18/papers/287_65.pdf)

Also at the Esri conference, Joel, Jane, and Drew Decker of USGS met with Esri staff and other Esri customers to express our concern for the lack of support for the geometric network in ArcGIS Pro. The NHD is built on the Esri file geodatabase model and while a shapefile version of the feature classes is available, the functionality of the flow network in the NHD depends on the use of Esri's ArcMap and the Utility Network Analyst toolbar that is included with every installation. The functionality of this toolbar was left out of ArcGIS Pro and replaced by a utility network extension that forces the user's data into a different data model and is not part of the ArcGIS Pro installation (requires a separate purchase.) Esri staff listened and took notes but did not promise any specific follow-up.

Preparations are underway for a full-day workshop on NHD Applications at the GISPro-CalGIS 2018 meeting in Palm Springs on October 9. Seats are still available but because this is part of the GISPro event, the workshop has a cost associated with it. More information is available at <https://gisprocalgis2018.sched.com/event/EULU/national-hydrography-dataset-nhd-applications-full-day-workshop-aicpcm-approved-85>. This workshop serves as an introduction to the NHD and how it is used in mapping, resource planning and management, disaster response, and more. Also at this event, on October 10, three NHD presentations will be part of the session titled "The National Hydrography Dataset – Dendritic Paths to Shared Hydrography." <https://gisprocalgis2018.sched.com/event/EUsR/the-national-hydrography-dataset-dendritic-paths-to-shared-hydrography-aicpcm-approved-15>



USGS released its Markup Application that allows anyone to submit corrections or additions to the NHD and the Watershed Boundary Dataset. The application runs in the Chrome browser and requires a gmail account. More information on this is available on the newly-revamped USGS website at <https://www.usgs.gov/core-science-systems/ngp/national-hydrography> and in the August 2018 edition of the NHD Newsletter [https://prd-wret.s3-us-west-2.amazonaws.com/assets/palladium/production/s3fs-public/atoms/files/NHDNewsletter\\_17\\_08\\_Aug2018.pdf#page=1](https://prd-wret.s3-us-west-2.amazonaws.com/assets/palladium/production/s3fs-public/atoms/files/NHDNewsletter_17_08_Aug2018.pdf#page=1). A training video on the Markup Application is now available on the USGS YouTube channel <https://www.youtube.com/watch?v=4hnvgPZxY5Q>. Jane will be reviewing the markup submissions and will incorporate the changes into the NHD as appropriate.

Anyone wishing to receive news and updates on the California NHD Stewardship Program is invited to subscribe to a new listservice [https://listservice.cnra.ca.gov/scripts/wa.exe?A0=DWR\\_NHD](https://listservice.cnra.ca.gov/scripts/wa.exe?A0=DWR_NHD)

Any organization that wishes to participate in the NHD Stewardship Program by contributing reference datasets and/or becoming editors should contact Jane at [jane.schafer-kramer@water.ca.gov](mailto:jane.schafer-kramer@water.ca.gov) or at 916-653-4441. Any questions on NHD stewardship in California may also be directed to Jane.

#### Legislative/Policy Update

The Memorandum of Understanding between DWR and USGS has been approved internally by DWR and is still in USGS internal review.

#### Next Actions & Key dates

- Get the NHD Stewardship MOU signed (no deadline date.)
- Members will continue coordination activities.
- NHD Applications Workshop, October 9, 2018, at GISPro-CalGIS in Palm Springs.
- DWR will update the interim status map and continue development of a more robust NHD status application that includes planned future work. [www.tinyurl.com/calnhd](http://www.tinyurl.com/calnhd)
- Continue outreach activities to partner with counties, regional agencies, and tribes to incorporate local knowledge into the NHD.

Action	Key Date
Finalize MOU (awaiting action by USGS)	open
Establish NHD Stewardship presence at GISPro-CalGIS 2018 event, October 9-12, Palm Springs	October 9-10
Continue NHD Update work	

#### Documents and Attachments

The latest version of the California Business Rules for editing the NHD will always be posted on the program's website. These updates address issues faced by the editors as they are discovered.

The California NHD Stewardship Program website is: <http://www.water.ca.gov/waterdatalibrary/NHD/index.cfm>

#### Notes



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